REMARKS

Favorable reconsideration in view of the following remarks is respectfully requested.

Claims 1-18 are pending. Claims 1 and 18 are independent.

Applicants appreciate the courtesies extended to Applicants' representative during the October 6, 2009 telephone discussion. The substance of the discussion is incorporated into the remarks herein and constitutes Applicants' record of the discussion.

The Office Action rejects claims 1-18 under 35 U.S.C. §102(e) over U.S. Patent No. 6,701,232 to Yamaki. This rejection is respectfully traversed.

Applicants' independent claim 1 recites, in combination with other claimed features, a process control system comprising measurement devices and actuators. All the measurement devices and actuators contain means for information processing and for data interchange between the measurement devices and actuators. All the measurement devices and actuators are connected by means for bidirectional data interchange.

Such features encompass Applicants' exemplary embodiment as illustrated in Fig. 1 wherein sensors 2a, 2b and 2c and actuator 3 each include the processor 1 and an interface 5. Each are connected via bidirectional data interchange 4d.

As disclosed in the Yamaki patent at the paragraph beginning at line 27 of column 8, the actuator, sensors and switches provided in the engine system are connected to an engine control unit (ECU). The ECU corresponds to one of the controlling units constituting the network 101 of the vehicle 100 and is primarily

structured as a microcomputer. (See the Yamaki patent at the paragraph beginning at line 47 of column 3.)

At the paragraph beginning at line 18 of column 9, the Yamaki patent discloses that the various sensors are connected to the ECU 70 through the AD converter 80 and I/O interface 77. The CPU 71 contained in the ECU 70 executes the control program stored in the ROM 72 to process detection signals from the various sensors and switches. See the Yamaki patent at the paragraph beginning at line 39 of column 9. In addition, Fig. 6 is a flow chart for the actuator functional diagnosis. The ECU checks in step S10 whether a diagnosis running condition is satisfied. If the diagnosis running condition is not satisfied, the ECU exits the routine at once, and if the diagnosis running condition is satisfied, it proceeds to S11 for executing the diagnosis.

These portions of the Yamaki patent show that the sensors and actuators do not contain means for information processing and for bidirectional data interchange.

The portion of the Yamaki patent cited by the Examiner as disclosing bidirectional data interchange (col. 4, lines 55-65) does not relate to the sensors and actuators. Instead, this portion of the Yamaki patent discloses that a user may contact information control center 151 by using for example a cellular phone or a personal PC. See also column 5, the paragraph beginning at line 47 of the Yamaki patent.

Yamaki has the problems addressed by the combinations of features of claim 1. Specifically, centralization of the measurement value processing has the disadvantage that data information can be passed on only from the information node because this is the only place that the data processing algorithms are stored. See

Applicants' as-filed specification at the paragraph beginning at line 9 of page 2. For a local operator at the location of the sensor, it is often necessary to directly know the further processed information in order to allow assessment of the process of the product.

As discussed during the interview, the Yamaki patent discloses at the paragraph beginning at line 39 of column 9, a CPU 71 executes the control program to process detection signals from the sensors and switches. The fuel injection volume, the ignition timing etc. are computed based on the data stored in the RAM 73, on various learned value data stored in the backup RAM 74, and on fixed data stored in ROM 72, thereby performing engine control. That is, the sensors send data to the ECU and the ECU sends control signals to the actuators. The actuators do not communicate with the sensors and the sensors do not communicate with the actuators.

Therefore, the Yamaki patent does not disclose measurement devices and actuators contain means for information processing and for data interchange between the measurement devices and actuators, and for all the measurement devices and actuators being connected by means for bidirectional data interchange, as in Applicants' claim 1, Thus, claim 1 is distinguishable over the Yamaki patent.

Independent claim 18 is allowable for reasons similar to those discussed above with respect to independent claim 1.

The dependent claims are allowable for at least the reasons discussed above as well as for the individual features they recite.

Early and favorable action with respect to this application is respectfully requested.
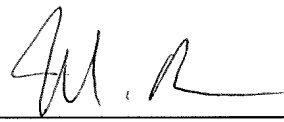
Should any questions arise in connection with the application or should the

Examiner believe that a telephone conference with the undersigned would be helpful

in resolving any remaining issues pertaining to this application, the undersigned

respectfully requests that he be contacted at the number indicated below.

Respectfully submitted,

BUCHANAN INGERSOLL & ROONEY PC

Date: <u>October 16, 2009</u>　　　By: _____

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